$$\frac{C_1V_1}{2}=\frac{C_2V_2}{5}$$

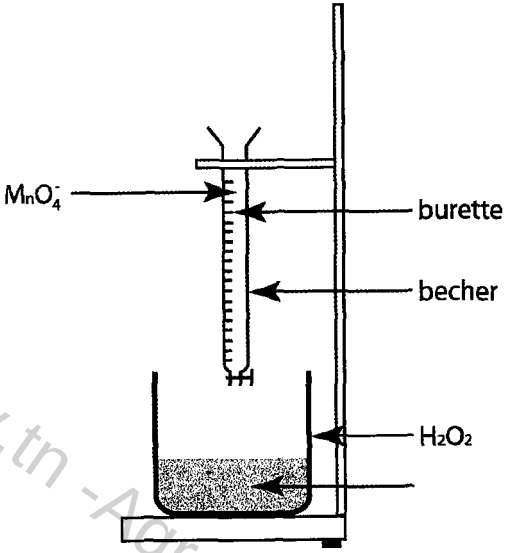
$$C_2=\frac{5C_1V_1}{2V_2}=\frac{5\times0,5\times10.10^{-3}}{2\times25.10^{-3}}=0,5mol\ L^{-1}$$

c/ $m=C_2M.V=0,5\left[2\times1+2\times12+4\times16\right]\times1$

$=45g$

4

1/



2/ $MnO_4^- + 8H_3O^+ + 5e^- \rightleftharpoons Mn^{2+} + 12H_2O$

$H_2O_2 + 2H_2O \rightarrow O_2 + 2H_3O^+ + 2e^-$

$2MnO_4^- + 6H_3O^+ + 5H_2O_2 \rightarrow 2Mn^{2+} + 5O_2 + 14H_2O$

A l'équivalence $\frac{n(MnO_4^-)}{2}=\frac{n(H_2O_2)}{5}$

3/a/ $n_0=C_0.V_0 \Rightarrow V_0=\frac{n_0}{C_0}=\frac{1,6.10^{-4}}{0,02}=8.10^{-3}L$

b/ $\frac{n\ MnO_4^-}{2}=\frac{n(H_2O_2)}{5}$

$\frac{C_0.V_0}{2}=\frac{C_r.V_r}{5}$

$C_r=\frac{5C_0V_0}{2V_r}=\frac{5\times0,02\times8.10^{-3}}{2\times4\times10^{-3}}$

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